

# SPEEDBX<sup>RS</sup>

[www.rtsmedical.si](http://www.rtsmedical.si)



# USER MANUAL

Please read and follow all instructions in this owner's manual before attempting to operate your wheelchair attachment for the first time.

If there is anything you do not understand about this manual, or if you require additional assistance for set-up, please contact your authorized provider.

Using your product safely depends on your diligence in following the warnings, cautions, and instructions in this owner's manual. It also depends upon your own good judgment and/or common sense, as well as that of your provider, care giver, and/or healthcare professional. Manufacturer is not responsible for injuries and/or damage resulting from any person's failure to follow the warnings, cautions, and instructions in this owner's manual. Distributor is not responsible for injuries and/or damage resulting from any person's failure to exercise good judgment and/or common sense.

The symbols below are used throughout this owner's manual to identify warnings and cautions. It is very important for you to read and understand them completely.

## Model: SPEED3X RS



**WARNING!** Failure to follow the warnings in this owner's manual may result in personal injury.

**CAUTION!** Failure to follow the cautions in this owner's manual may result in damage to your Wheelchair attachment.

**USE AT YOUR OWN RISK!!**

**Obligatory mechanic service per 300km or at least once (1) a year**

**Deadline for repairing an error is 45 days.**

**Load capacity 110kg.**

## TABLE OF CONTENTS

<b>I . INTRODUCTION.....</b>	<b>4</b>
<b>II . SAFETY.....</b>	<b>5</b>
<b>III. YOUR WHEELCHAIR ATTACHMENT .....</b>	<b>10</b>
<b>IV. BATTERIES AND CHARGING.....</b>	<b>11</b>
<b>V . OPERATION.....</b>	<b>13</b>
<b>VI. COMFORT ADJUSTMENTS .....</b>	<b>14</b>
<b>VII. BASIC TROUBLESHOOTING.....</b>	<b>15</b>
<b>VIII. CARE AND MAINTENANCE .....</b>	<b>16</b>
<b>IX. WARRANTY .....</b>	<b>18</b>
<b>X. MAINTENANCE BOOK.....</b>	<b>19</b>

# I . INTRODUCTION

Congratulations on the purchase of your new SPEED3X RS wheelchair attachment. Your wheelchair attachment design combines the most advanced state-of-the-art components with modern, attractive styling. We are sure that the design features and trouble-free operation will add convenience to your daily living and ensure complete satisfaction.

Your safety is the most important to us. Please read and follow all of the instructions in this manual before you attempt to operate your wheelchair attachment for the first time. These instructions were produced for your benefit. Your understanding of these instructions is essential for the safe operation of your new Wheelchair attachment.

Distributor and manufacturer are not liable for damage to property or personal injury arising out of the unsafe use of the wheelchair attachment and are also not liable for any property damage or personal injury arising out of the failure of any person and/or user to follow the instructions and recommendations set forth in this manual or any other instructions or recommendations contained in other wheelchair attachment related literature or contained on the wheelchair attachment itself.

This manual includes the newest technology standard and the product information. We withhold this manual of the explanation and the revision right. It is possible that there will be slight difference between any change of our product and the illustration of the manual, the explanation and the product which you have purchased. If you meet any safety questions which you can't solve while using the Wheelchair attachment, or if you think the instruction and/or the recommendation methods which the manual provides are unable to carry on the safe operation, you may seek the help from the local dealer of the wheelchair attachment.

If you have some advice or request, please contact us by telephone, fax or leave the message on our website. We appreciate your advice and we will continue to improve our quality and enhance our service.

Manufacturer:	RTS Medical d.o.o.	
Address:	Cesta v Mestni log 55, 1000 Ljubljana	
	Tel :	059 192 914
	E-mail :	<a href="mailto:info@rtsmedical.si">info@rtsmedical.si</a>
Web:	<a href="http://www.rtsmedical.si">www.rtsmedical.si</a>	

## II. SAFETY

### GENERAL:



**WARNING!** Do not operate your new wheelchair attachment for the first time without completely reading and understanding this owner's manual.

Your wheelchair attachment is a state-of-the-art life-enhancement device designed to increase mobility. Please be aware that the final selection and purchasing decision regarding the type of wheelchair attachment to be used is the responsibility of the wheelchair attachment user who is capable of making such a decision and his/her healthcare professional (i.e., medical doctor, physical therapist, etc.).



**WARNING!** Do not modify your wheelchair attachment in any way not authorized by manufacturer. Unauthorized modifications may result in personal injury and/or damage to your wheelchair attachment.

### REMOVABLE PARTS



**WARNING!** Do not attempt to lift or move a wheelchair attachment by any of its removable parts. Personal injury and damage to the wheelchair attachment may result.

### PRE-RIDE SAFETY CHECK

Get to know the feel of your wheelchair attachment and its capabilities. It is recommended that you perform a safety check before each use to make sure your wheelchair attachment operates smoothly and safely. For details on how to perform these necessary inspections, see chapter VIII. "Care and Maintenance."

Perform the following inspections prior to using your wheelchair attachment:

- Check all electrical connections. Make sure they are tight and not corroded.
- Check the harness. Make sure it is secured properly.
- Check the brakes
- Check battery charge.
- Check that the bolts are tightened.

### TIRE INFLATION

If your wheelchair attachment is equipped with air tires, you should check or have the air pressure checked at least once a week. Proper inflation pressures (2,8 - 4,00 bar, as stated on tires) will prolong the life of your tires and help ensure the smooth operation of your wheelchair attachment.



**WARNING!** Do not under inflate or over inflate your tires. Low pressure may result in loss of control, and over inflated tires may burst.

**WARNING!** Inflate your wheelchair attachment tires with regulated air source with an available pressure gauge. Inflating your tires from an unregulated air source could over inflate them, resulting in a burst tire and/or personal injury.

## INCLINE INFORMATION

**WARNING!** You should not travel up or down a potentially hazardous incline (i.e., areas covered with snow, ice, cur grass, or wet leaves).



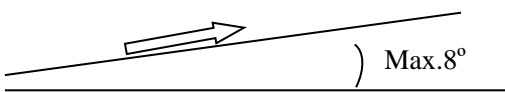
**WARNING!** When you are climbing an incline, do not drive the switchbacks and do not forms the angle with the incline, it will reduce the possibility of the turning over.

**WARNING!** Do not drive the wheelchair attachment in the wrong direction when climbing and/or downgrading, in order to avoid injuries.

## II . SAFETY

The Max. safety climbing angle of the wheelchair attachment is 8°

Please see the figure1.and 2.



**Figure1**



**Figure2**



**WARNING!** Any climbing the incline with the angle more than 8° can hurt you and break the wheelchair attachment.

Handicap public access ramps are not subject to government regulation in all countries, and therefore do not necessarily share the same standard degree of slope.

Other inclines maybe natural or, if man-made, not designed specifically for wheelchair attachments, Figure 1 illustrates your wheelchair attachment's stability and its ability to climb grades under various weight loads and under controlled testing conditions.

These tests were conducted with the wheelchair attachment's seat in the highest position and adjusted rearward on the seat base to its farthest rearward position. Use this information as a guideline. Your wheelchair attachment's ability to travel up inclines is affected by your weight, your wheelchair attachment's speed, your angle of approach to the incline, and your wheelchair attachment setup.



**WARNING!** When cornering sharply, reduce your speed. When using your wheelchair attachment at higher speeds, do not corner sharply. This greatly reduces the possibility of falling. To avoid personal injury or property damage, always exercise common sense when cornering.

## OUT DOOR DRIVING SURFACES.

Our wheelchair attachment is designed to provide optimum stability under normal driving conditions –dry, level surfaces composed of concrete, blacktop, or asphalt. However, there will be times when you will encounter other surface types. For this reason, your wheelchair attachment is designed to perform admirably on packed soil, grass, and gravel. Feel free to use your wheelchair attachment safely on lawns and in park areas.

- Reduce your wheelchair attachment's speed when driving on uneven terrain and/or soft surfaces.
- Avoid tall grass that can become tangled in the running gear.
- Avoid loosely packed gravel and sand.
- If you feel unsure about a driving surface, avoid that surface.

## II. SAFETY

### STREETS AND ROADWAYS



**WARNING!** You should not operate your wheelchair attachment on public streets and roadways. Be aware that it may be difficult for traffic to see you when you are seated on your wheelchair attachment. Obey all local pedestrian traffic rates. Wait until your path is clear of traffic, and then proceed with extreme caution.

### INCLEMENT WEATHER PRECAUTIONS



**WARNING!** We recommend that you do not operate your wheelchair attachment in icy or slippery conditions or on salted surfaces (i.e., walks or roads). Such using may result in an accident, personal injury, or adversely affect the performance and safety of your wheelchair attachment.

**WARNING!** Do not operate or store your wheelchair attachment where it may be exposed to inclement weather conditions such as rain, snow, mist, and below freezing temperatures (such as storage on an outside car/van lift). Attempting to operate the wheelchair attachment in such conditions can damage the electronics and potentially result in loss of control.

### STAIRS AND ESCALATORS

Wheelchair attachments are not designed to travel up or down stairs or escalators. Always use an elevator.



**WARNING!** Do not use your wheelchair attachment to negotiate steps or escalators. You may cause injury to yourself and to others and/or damage your wheelchair attachment.

### LIFT/ELEVATION PRODUCTS

If you will be traveling with your wheelchair attachment, you may find it necessary to use a lift/elevation product to aid in transportation. We recommend that you closely review the instructions, specifications, and safety information set forth by the manufacturer of the lift/elevation product before using that product.



**WARNING!** Never sit on your wheelchair attachment when it is being used in connection with any type of lift/elevation product. Your wheelchair attachment was not designed for such use, and any damage or injury incurred from such use is not the responsibility of manufacturer.

### BATTERIES

In addition to following the warnings below, be sure to comply with all other battery handling information.

### BATTERY DISPOSAL AND RECYCLING

If you encounter a damaged or cracked battery, immediately enclose it in a plastic bag and call your authorized provider for instructions on disposal. Your authorized Provider will also have the necessary information on battery recycling, which is our recommended course of action.

### MOTOR WHEELCHAIR ATTACHMENT TRANSPORT

Currently, there are no standards approved for tie-down systems in a moving wheelchair attachment of any type to transport a person while seated in a wheelchair attachment.

## II. SAFETY



**WARNING!** Do not sit on your wheelchair attachment while it is in a moving wheelchair attachment. Personal injury and/or property damage may result.

**WARNING!** Always be sure your wheelchair attachment and its batteries are properly secured when it is being transported. Failure to do so may result in personal injury and/or damage to your wheelchair attachment.

### PREVENTING UNINTENDED MOVEMENT



**WARNING!** If you anticipate being seated in a stationary position for an extended period of time, turn off the power. This will prevent unexpected motion from inadvertent throttle control lever contact. Tighten the brakes on your wheelchair. Failure to do so may result in personal injury.



**WARNING!** Do not bend, lean, or reach for objects if you have to pick them up from the floor by reaching down between your knees. Movements such as these may change your center of gravity and the weight distribution of the wheelchair attachment. This may cause your wheelchair attachment to tip, possibly resulting in personal injury.

### PRESCRIPTION DRUGS/PHYSICAL LIMITATIONS

The wheelchair attachment user must exercise care and common sense when operating his/her wheelchair attachment. This includes awareness of safety issues when taking prescribed or over-the-counter drugs or when the user has specific physical limitations,



**WARNING!** Consult your physician if you are taking prescribed or over-the-counter medication or if you have certain physical limitations. Some medications and limitations may impair your ability to operate your wheelchair attachment in safe manner.

### ALCOHOL

The wheelchair attachment user must exercise care and common sense when operating his/her wheelchair attachment. This includes awareness of safety issues while under the influence of alcohol.



**WARNING!** Do not operate your wheelchair attachment while you are under the influence of alcohol, as this may impair your ability to drive safely.



### III. YOUR WHEELCHAIR ATTACHMENT

#### MODEL: SPEED3X RS 350 and 500

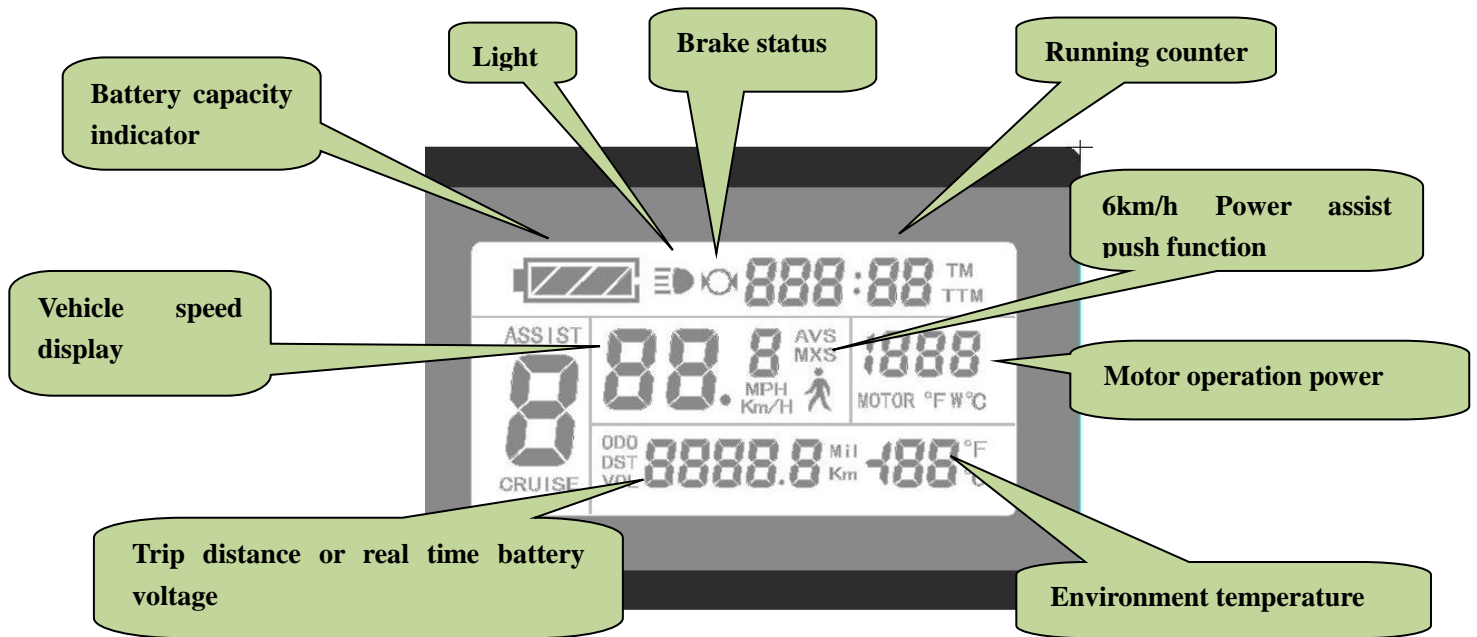
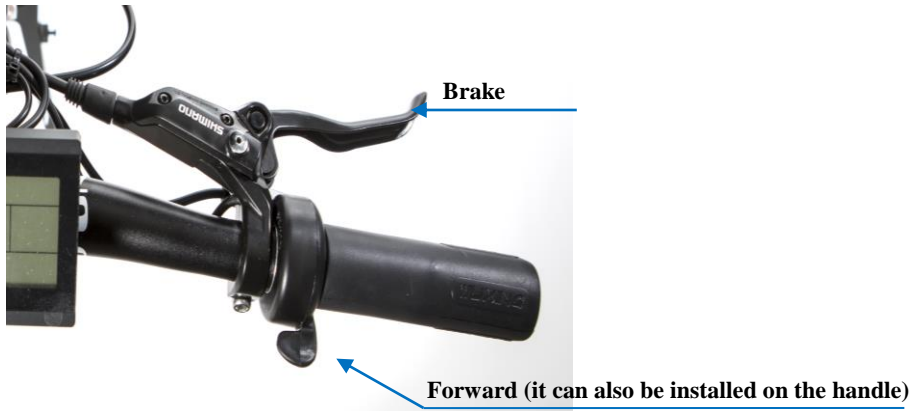


Wheel:	16 Inch	Battery:	48V/10,6Ah lithium
Max forward speed:	25KM/H	Range:	40 ± 5KM
Motor:	350W/500W	Weight:	15/18kg

### III. YOUR WHEELCHAIR ATTACHMENT

#### CONTROL CONSOLE ASSEMBLY

The control console assembly located on the front section houses all of the controls you need to operate your wheelchair attachment. See the following figure.



## IV. BATTERIES AND CHARGING

### BATTERY IS REMOVABLE



To remove the battery unlock and then pull up.



Hold the button to display the remaining battery power .



**WARNING!** Ensure that the first charging need more than 24 hours and before the first charging, the batteries should be used until they are empty.

1. Charge your wheelchair attachment's batteries prior to using it for the first time.
2. Keep the batteries fully charged to keep your wheelchair attachment running smoothly



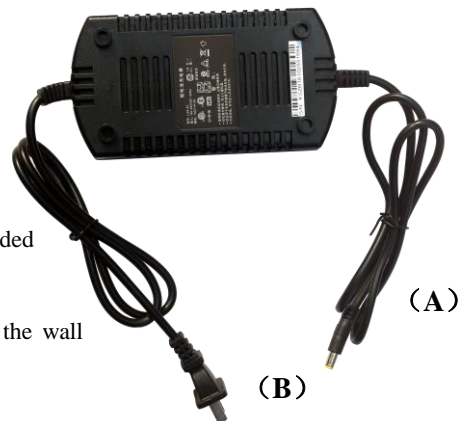
Charging port

## IV. BATTERIES AND CHARGING

### CHARGING YOUR BATTERIES

Follow these easy steps to charge your battery safely:

1. Turn off the battery key
2. Remove the battery from your wheelchair attachment.
3. Plug the charger power cord into the receptacle. (A)
4. Extend the charger power cord and plug it into the wall outlet. It is recommended that you charge your batteries for 4 to 6 hours. (B)
5. When the batteries are fully charged, unplug the charger power cord from the wall outlet and then from the charger power cord receptacle,



### BATTERY DISPOSAL AND RECYCLING



**WARNING!** Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard wall outlet.

If you encounter a damaged or cracked battery, immediately enclose it in a plastic bag and call your authorized Provider for instructions on disposal. Your authorized Provider will also have the necessary information on battery recycling, which is our recommended course of action,

### FREQUENTLY ASKED QUESTIONS (FAQs)

#### How does the charger work?

When battery voltage is low, the charger works harder and sends more electrical current to the batteries to bring up their charge. As battery voltage approaches a full charge, the charger sends less electrical current to the batteries. When the batteries are fully charged, the current sent from the charger is at nearly zero amperage. Therefore, when the charger is plugged in, it maintains the charge on your batteries but does not overcharge them. We do not recommend that you charge your batteries for more than 24 consecutive hours,

#### CAN I USE A DIFFERENT CHARGER?

Please note that, the battery is lithium battery, and you must use the lithium battery charger. For the safest, most efficient, and balanced charging of the batteries, you should only use the lithium battery charger.

- If you use your wheelchair attachment daily, charge its batteries as soon as you finish using it for the day. Your wheelchair attachment will be ready each morning to give you a "full day" of service. We recommend you charge the batteries for 8 to 14 hours after daily use.
- If you use your wheelchair attachment once a week or less, charge its batteries at least once a week for 12 to 14 hours at a time.
- Keep the batteries fully charged.
- Do not charge the batteries for more than 24 consecutive hours.
- When you don't use the wheelchair attachment for a longer period of time, charge batteries every 2 months.

## V. OPERATION

### Sports wheelchair installation steps



#### INSTALL:

**Step 1 :** The "connecting component" is arranged on both sides of the wheel chair frame and fixed. Connect the wheelchair and the connecting components of the attachment and turn the handles of left and right component to tighten them.

**Step 2 :** Loosen the orange safety pin and lift the handlebar to the desired height.

**Step 3: Obligatory: tighten the orange safety pin, or serious danger can occur.**

**Step 4:** Lift the supporting leg and stuck the lever on the side, so that you fix the position of the supporting leg.

**Step 5:** Press the button to unlock the handlebar.

**Step 6:** Press on/off button.

#### UNINSTALL:

**Step 1:** Release the supporting leg.

**Step 2:** Press the button on the side next to the battery to lock the handlebar.

**Step 3:** Untighten the orange safety pin.

**Step 5:** Push the handlebar gently forward.

**Step 5:** Lift the tab under the orange safety pin and let down the handlebar, so that the supporting leg reaches the floor.

**Step 6:** Let go of the tab and slightly tighten the orange safety pin. Press on/off button to turn the attachment off.

**Step 7:** Loosen the connecting elements on left and right side to release the wheelchair from the attachment.

Handle of connecting component



Safety pin



Tab



**WARNING!** Must to tighten the safety nut before running the wheelchair attachment.

**WARNING!** Never forget to wear seat belts before running.

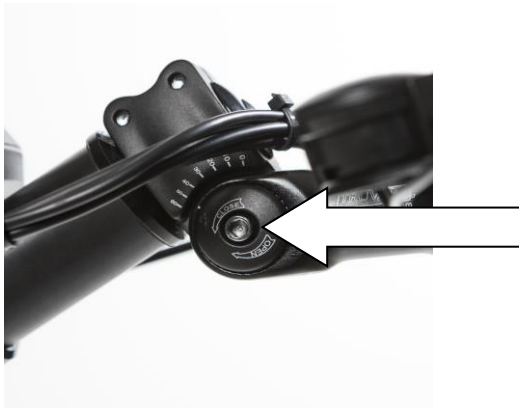
**WARNING!** Do not take a sudden turn in the case of high speed . This will prevent the wheelchair attachment overturn .

## VI. COMFORT ADJUSTMENTS

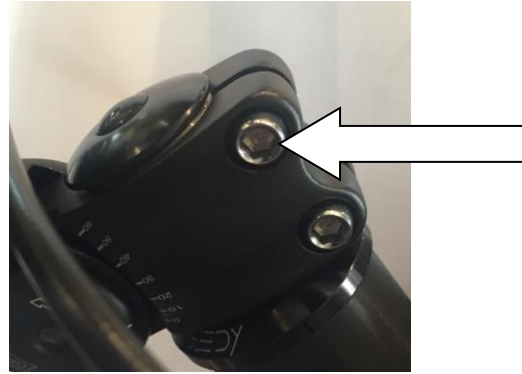


**WARNING!** Remove the key from the key switch before adjusting the wheelchair attachment. Never attempt to adjust the wheelchair attachment while the wheelchair attachment is in motion.

### ADJUSTING HANDLEBAR



Adjust handlebar up/down



Adjust handlebar to left/right

The handlebar height of your trailer can be adjusted upward or downward. See the figure on the left .

1. Loosen the thumbscrews .
2. Slide the handlebar in or out to the desired height.
3. Tighten the thumbscrews.

## VII. BASIC TROUBLESHOOTING

Any electromechanical device requires occasional troubleshooting. However, most problems that arise can usually be solved with a bit of thought and common sense. Many of these problems occur because the batteries are not fully charged or because the batteries are worn down and can no longer hold a charge.

### **WHAT IF ALL OF MY WHEELCHAIR ATTACHMENT SYSTEMS APPEAR TO BE "DEAD."**

1. Ensure that the batteries are fully charged.
2. Make certain that battery are firmly connected.
3. Make sure that the front-to-rear harness is firmly connected.
4. Remove and reinsert the key.

### **WHAT IF THE MAIN CIRCUIT BREAKER REPEATEDLY TRIPS?**

- Charge the wheelchair attachment's batteries more frequently.
- If the problem continues, have both of your wheelchair attachment's batteries load tested by your authorized Provider.

### **WHAT IF THE BATTERY CONDITION METER DIPS WAY DOWN AND THE MOTOR SURGES OR HESITATES WHEN I PRESS THE THROTTLE CONTROL LEVER?**

- Fully charge your wheelchair attachment's batteries.
- Have your authorized Provider load test each battery.

If you experience any problems with your wheelchair attachment that you are not able to handle, immediately contact your authorized Provider for information, maintenance, and service.



## VIII. CARE AND MAINTENANCE

The wheelchair attachment is a sophisticated victory. Like any motorized wheelchair attachment, it requires maintenance checks. You can check it yourself, but others require assistance from the dealer of the wheelchair attachment. Preventive maintenance is very important. If you follow the maintenance checks in this section as scheduled, you can help ensure that your wheelchair attachment gives you years of trouble-free operation. If you have any doubt as to your wheelchair attachment's care or operation, contact the dealer.



**WARNING!** Your wheelchair attachment like most electrical equipment is susceptible to damage from the elements. Avoid damp areas of any kind. Water can cause electrical components to corrode and the chair's frame to rust.

### SHOULD YOUR WHEELCHAIR ATTACHMENT COME IN CONTACT WITH WATER?

1. Dry your wheelchair attachment as thoroughly as possible with a towel.
2. Allow your wheelchair attachment to sit in a warm, dry place for 24 hours to allow unseen water to evaporate.
3. If any inconsistencies are found, take your wheelchair attachment to your authorized Provider.

### GENERAL GUIDELINES

- Avoid knocking or bumping the controller.
- Avoid prolonged exposure of your wheelchair attachment to extreme conditions, such as heat, cold, or moisture.
- Keep the motor clean.
- Check all connectors to ensure that they are all tight and secured properly.



**NOTE:** Please deal with the former battery as the local way of dealing with the castoff.

### CORRECTIVE MAINTENANCE

If the battery condition meter does not light up when you turn on the power.

- Check the battery base connections. Make sure they are tight.

### OTHER CORRELATION COMPLEXION

#### 1、 Temperature

Some of the parts of your wheelchair attachment are easy to extreme changes in temperature. Always keep your wheelchair attachment between the temperatures of 7 degree to 25°C.

- In extremely cold temperature the batteries may freeze. The specific temperature at which they freeze depends on a number of factors, such as battery charge, usage, and composition of the batteries.
- The high temperature may cause your wheelchair attachment to operate at a reduced speed. This reduce speed is a safety feature built into the controller that helps prevent damage to the motor and other electrical components.

#### 2、 Storage

Your wheelchair attachment should be stored in a dry place, free from temperature extremes. When storing, disconnect batteries from the power.

#### 3、 When to see your authorized Provider for service.

The following symptoms could indicate a serious problem with your wheelchair attachment . If necessary, contact your authorized Provider. When calling, have the model number, serial number, nature of the problem, and the error code if available.

◆ Motor noise	◆ pulling to one side
◆ Frayed harnesses	◆ bent or broken wheel assemblies.
◆ cracked or broken connections	◆ Jerky motion
◆ uneven wear on any of the tires	◆ powers up, but does not move



**WARNING!** Do not use a rubber or vinyl conditioner on the wheelchair attachment, or tire tread. They will become dangerously slippery and result in personal injury and/or damage to your wheelchair attachment.



## **VIII. CARE AND MAINTENANCE**

### **BATTERY TERMINAL CONNECTIONS**

- Make certain that the terminal connections remain tight
- The batteries must sit straight in the battery wells.

### **WIRING HARNESES**

- Regularly check all wiring connections,
- Regularly check all wiring insulation, including the charger power cord, for wear or damage.

### **AXLE BEARINGS AND THE MOTOR/TRANSAXLE ASSEMBLY**

You do not need to lubricate these items, as they are all prelubricated and sealed.

## IX. WARRANTY

### ONE-YEAR LIMITED WARRANTY

One years on all structural frame components.

For one (1) year from the date of purchase, provider will repair or replace at our option to tile original purchaser, free of charge, any part or electronic component found upon examination by an authorized representative to be defective in material and/or workmanship,

The battery is warranted by the battery manufacturer, The battery is not warranted, Warranty service can be performed by an authorized Provider, Do not return faulty parts without prior consent, All transportation costs and shipping damage incurred while submitting parts for repair or replacement are the responsibility of the original purchaser,

### ONE-YEAR WARRANTY EXCEPTIONS

**TRANSAXLE:** In cases where there is an increase in the operational noise level, the warranty does not apply,(The increase in operational noise level usually occurs due to abusive and excessive strain on the wheelchair attachment.)

**MOTOR BRAKE:** Brake pads are a wear item and are not warranted.

### WARRANTY EXCLUSIONS

- ◆ Wheels for the supporting legs (wear items and not warranted)
- ◆ Batteries (the battery manufacturer provides a limited warranty)
- ◆ Tires and tire tubes (wear items and not warranted)
- ◆ Upholstery and seating (wear items and not warranted)
- ◆ Repairs and/or modifications made to any part of the wheelchair attachment without specific and prior consent from
- ◆ Circumstances beyond the control of
- ◆ Damage caused by: battery fluid spillage or leakage, abuse, misuse, accident, or negligence, improper
- ◆ operation, maintenance, or storage, commercial use or use other than normal
- ◆ Labor, service calls, shipping, and other charges incurred for repair of the product

### THERE IS NO OTHER EXPRESS WARRANTY

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one (1) year from the date of original purchase and to the extent permitted by law. Any and all implied warranties are excluded, This is the exclusive remedy, Liabilities for consequential damages under any and all warranties are excluded,

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion of limitation of incidental or consequential damages, So, the above limitation or exclusion may not apply to you.

